		NTSB ID: CHI00LA312		Aircraft Registration Number: N806BF	
		Occurrence Date: 09/14/2000		Most Critical Injury: None	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place Belleville	State MI	Zip Code 48111	Local Time 2215	Time Zone EDT	
Airport Proximity: On Airport		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer Cessna		Model/Series 208B		Type of Aircraft Airplane	
Sightseeing Flight: No			Air Medical Transport Flight: No		
Narrative					
Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:					
<p>HISTORY OF FLIGHT</p> <p>On September 14, 2000, about 2215 eastern daylight time, a Cessna 208B, N806BF, piloted by an airline transport pilot, sustained substantial damage to its tail section on contact with the ramp surface while standing on the ramp. The flight encountered a shift in cargo on takeoff roll, aborted its takeoff, and taxied back to the ramp at Willow Run Airport (YIP), near Belleville, Michigan, where it's tail section came to rest on the ramp following engine shutdown. The non-scheduled domestic cargo flight was operating under 14 CFR Part 135. Visual meteorological conditions prevailed at the time of the accident. The pilot was uninjured. The flight was originating at the time of the accident and was destined for Virgil I. Grissom Municipal Airport, near Bedford, Indiana.</p> <p>An Air Traffic Control Tower specialist stated:</p> <p>On or about September 14, 2000, I cleared a Cessna Caravan (C208) for takeoff and, while on the roll, the Caravan aborted stating that his load had shifted. (I don't recall if the aircraft needed to return to the ramp, or fixed his load on the runway). The aircraft later departed without incident.</p> <p>I don't recall the aircraft callsign or the exact time or date, but I do recall that it was after dark and that the Caravan initially aborted takeoff.</p> <p>A Federal Aviation Administration (FAA) inspector interviewed the pilot after the accident. The inspector's record of interview stated:</p> <p>[The pilot] explained that he didn't load the aircraft that someone else had while he watched. ... According to him, prior to this incident only three to four straps were used. ... [The pilot] went on to explain that the cargo shifted upon the takeoff roll. The taxi to the runway was normal but when he began the takeoff he heard a loud noise from the rear of the aircraft and looked to see the cargo pallet resting against the rear wall of the cargo compartment. ... Upon returning to the ramp he shut down the engine and that's when the aircraft fell on its tail. ... He also said that he was glad that it didn't happen after he had rotated because he was sure that he would have been a fatal accident.</p> <p>A FAA inspector interviewed a witness. The inspector's record of interview stated:</p> <p>... [The witness] stated that when the aircraft sat on its tail, [the Fixed Base Operator (FBO) there] was asked to unload the cargo, which only had one strap holding it down, the 'D' ring had come loose from the floor attachment, and that the cargo was still on rollers under the skid.</p>					
FACTUAL REPORT - AVIATION					

National Transportation Safety Board

FACTUAL REPORT**AVIATION**

NTSB ID: CHI00LA312

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Occurrence Type: Accident

Narrative (Continued)

[The witness] stated that they initially loaded the cargo on the aircraft only, and that the pilot was the one that secured the cargo prior to the incident. After the incident [the FBO] un-loaded the cargo on request of the pilot ... and then was asked to reload the cargo by [the pilot] because the pilot stated something about a hernia. [The witness] stated that the only way they would load the cargo on the airplane again was if they loaded and secured the cargo per their procedures because when [the pilot] secured the cargo he only used one strap and left the load on the rollers. ... [The witness] stated that the plane departed the airport with the cargo about 45 minutes after the accident.

PERSONNEL INFORMATION

The pilot was an airline transport pilot. He held single, multiengine, and instrument ratings with instructor ratings in the same. He held a Second Class Medical Certificate with limitations for glasses. He reported his total flight time as 4,390 hours, total time in make and model as 75.8 hours, and 71 hours in the last 30 days.

AIRCRAFT INFORMATION

The airplane was a Cessna 208B, serial number 208B-0806. The last AAIP inspection was performed on August 29, 2000. The airplane had accumulated 29.2 hours time since its last inspection.

METEOROLOGICAL INFORMATION

At 2153, the YIP weather was: Wind 290 degrees at 8 knots; visibility 10 statute miles; sky condition clear; temperature 12 degrees C; dew point 12 degrees C; altimeter 29.91 inches of mercury.

TESTS AND RESEARCH

An FAA inspector acquired the double stud cargo tie down ring from the operator. The ring was sent to the National Transportation Safety Board Materials Laboratory for examination.


National Transportation Safety Board Materials Laboratory Factual Report number 01-069 stated:


Examination of the plunger revealed that there were portions of the pin in each end of the pin hole. The portion that would have retained the plunger over the body was missing. ...


The distance from the lowest point on the plunger pin ... to the underside of the plunger ... was measured and found to be 0.684 inches.


The fracture face, [of one of the roll pins], displayed a shiny granular appearance typical of a brittle fracture. ...


The side view ... illustrates the plunger in its lowest position with the pin contacting the bottom of the stud body hole In this position there is a gap of 0.09 inches between the bottom of the plunger ... and the bottom of the stud body (See appended National Transportation Safety Board Materials Laboratory Factual Report number 01-

 <p>National Transportation Safety Board</p> <p>FACTUAL REPORT</p> <p>AVIATION</p>	NTSB ID: CHI00LA312	
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	Occurrence Type: Accident	
Narrative (Continued)		
<p>069.)</p> <p>ADDITIONAL INFORMATION</p> <p>The parties to the investigation included the FAA and Telair International.</p> <p>The aircraft's tie down ring was returned to Thunder Aviation.</p>		
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 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: CHI00LA312				
		Occurrence Date: 09/14/2000				
		Occurrence Type: Accident				
Landing Facility/Approach Information						
Airport Name Willow Run Airport		Airport ID: YIP	Airport Elevation 716 Ft. MSL	Runway Used	Runway Length	Runway Width
Runway Surface Type: Unknown						
Runway Surface Condition: Unknown						
Type Instrument Approach: NONE						
VFR Approach/Landing: None						
Aircraft Information						
Aircraft Manufacturer Cessna		Model/Series 208B		Serial Number 208B-0806		
Airworthiness Certificate(s): Normal						
Landing Gear Type: Tricycle						
Homebuilt Aircraft? No	Number of Seats: 2	Certified Max Gross Wt. 8750 LBS		Number of Engines: 1		
Engine Type: Turbo Prop	Engine Manufacturer: Pratt & Whitney		Model/Series: PT6-114A	Rated Power: 675 HP		
- Aircraft Inspection Information						
Type of Last Inspection AAIP	Date of Last Inspection 08/29/2000	Time Since Last Inspection 29 Hours		Airframe Total Time 125 Hours		
- Emergency Locator Transmitter (ELT) Information						
ELT Installed? Yes	ELT Operated? No	ELT Aided in Locating Accident Site? No				
Owner/Operator Information						
Registered Aircraft Owner Thunder Aviation Acquisition		Street Address 9 E. Loocerman Street				
		City Dover	State DE	Zip Code 19901		
Operator of Aircraft Same as Reg'd Aircraft Owner		Street Address Same as Reg'd Aircraft Owner				
		City	State	Zip Code		
Operator Does Business As:			Operator Designator Code:			
- Type of U.S. Certificate(s) Held:						
Air Carrier Operating Certificate(s): On-demand Air Taxi						
Operating Certificate:			Operator Certificate:			
Regulation Flight Conducted Under: Part 135: Air Taxi & Commuter						
Type of Flight Operation Conducted:						
<div style="text-align: center;">FACTUAL REPORT - AVIATION</div> <div style="text-align: right;">Page 2</div>						

 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: CHI00LA312																																																																																				
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First Pilot Information																																																																																						
Name On File			City On File		State On File	Date of Birth	Age 49																																																																															
Sex: M	Seat Occupied: Left	Principal Profession: Civilian Pilot			Certificate Number:																																																																																	
Certificate(s): Airline Transport; Flight Instructor																																																																																						
Airplane Rating(s): Multi-engine Land; Single-engine Land																																																																																						
Rotorcraft/Glider/LTA: None																																																																																						
Instrument Rating(s): Airplane																																																																																						
Instructor Rating(s): Airplane Multi-engine; Airplane Single-engine; Instrument Airplane																																																																																						
Type Rating/Endorsement for Accident/Incident Aircraft? No					Current Biennial Flight Review? 07/10/2000																																																																																	
Medical Cert.: Class 2		Medical Cert. Status: Valid Medical--w/ waivers/lim.			Date of Last Medical Exam: 06/16/2000																																																																																	
<table border="1"> <thead> <tr> <th rowspan="2">- Flight Time Matrix</th> <th rowspan="2">All A/C</th> <th rowspan="2">This Make and Model</th> <th rowspan="2">Airplane Single Engine</th> <th rowspan="2">Airplane Multi-Engine</th> <th rowspan="2">Night</th> <th colspan="2">Instrument</th> <th rowspan="2">Rotorcraft</th> <th rowspan="2">Glider</th> <th rowspan="2">Lighter Than Air</th> </tr> <tr> <th>Actual</th> <th>Simulated</th> </tr> </thead> <tbody> <tr> <td>Total Time</td> <td>4390</td> <td>76</td> <td>3583</td> <td>619</td> <td>1171</td> <td>272</td> <td>190</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Pilot In Command(PIC)</td> <td>3967</td> <td>76</td> <td>3583</td> <td>598</td> <td>1025</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Instructor</td> <td>2025</td> <td>0</td> <td>2025</td> <td>0</td> <td>300</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Last 90 Days</td> <td>186</td> <td>76</td> <td>186</td> <td>0</td> <td>22</td> <td>12</td> <td>0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Last 30 Days</td> <td>71</td> <td>71</td> <td>71</td> <td></td> <td>7</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Last 24 Hours</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>								- Flight Time Matrix	All A/C	This Make and Model	Airplane Single Engine	Airplane Multi-Engine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air	Actual	Simulated	Total Time	4390	76	3583	619	1171	272	190				Pilot In Command(PIC)	3967	76	3583	598	1025						Instructor	2025	0	2025	0	300						Last 90 Days	186	76	186	0	22	12	0				Last 30 Days	71	71	71		7						Last 24 Hours	0	0	0	0	0	0	0			
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Last 24 Hours	0	0	0	0	0	0	0																																																																															
Seatbelt Used? Yes		Shoulder Harness Used? Yes			Toxicology Performed? No		Second Pilot? No																																																																															
Flight Plan/Itinerary																																																																																						
Type of Flight Plan Filed: None																																																																																						
Departure Point		State		Airport Identifier		Departure Time		Time Zone																																																																														
Same as Accident/Incident Location				YIP		1830		EDT																																																																														
Destination		State		Airport Identifier																																																																																		
Bedford		IN		BFR																																																																																		
Type of Clearance:																																																																																						
Type of Airspace:																																																																																						
Weather Information																																																																																						
Source of Briefing: Flight Service Station																																																																																						
Method of Briefing: Unknown																																																																																						

 National Transportation Safety Board FACTUAL REPORT AVIATION		NTSB ID: CHI00LA312			
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Weather Information					
WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
YIP	1853	EDT	716 Ft. MSL	NM	Deg. Mag.
Sky/Lowest Cloud Condition: Clear				Ft. AGL	Condition of Light: Night
Lowest Ceiling: None			Ft. AGL	Visibility: 10 SM	Altimeter: 29.91 "Hg
Temperature: 54 °C		Dew Point: 54 °C	Wind Direction: 290		Density Altitude: Ft.
Wind Speed: 8		Gusts:	Weather Conditions at Accident Site: Visual Conditions		
Visibility (RVR): Ft.		Visibility (RVV) SM	Intensity of Precipitation:		
Restrictions to Visibility: None					
Type of Precipitation: None					
Accident Information					
Aircraft Damage:		Aircraft Fire:		Aircraft Explosion	
Classification:					
- Injury Summary Matrix	Fatal	Serious	Minor	None	TOTAL
First Pilot				1	1
Second Pilot					
Student Pilot					
Flight Instructor					
Check Pilot					
Flight Engineer					
Cabin Attendants					
Other Crew					
Passengers					
- TOTAL ABOARD -				1	1
Other Ground					
- GRAND TOTAL -				1	1

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Administrative Information		
<p>Investigator-In-Charge (IIC)</p> <p>Edward F. Malinowski</p>		
<p>Additional Persons Participating in This Accident/Incident Investigation:</p> <p>Grant Gillian FAA Inspector FAA 10801 Pear Tree Lane St. Ann, MO 63074</p>		
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